**To:** 'Barbara Galloway'[bgalloway@eroresources.com]; 'Jones, Craig'[crajones@mt.gov]
**Cc:** 'Griffeth, Thomas'[TGriffeth@mt.gov]; Laidlaw, Tina[Laidlaw.Tina@epa.gov]
**From:** Kusnierz, Lisa
**Sent:** Tue 10/6/2015 3:57:09 PM
**Subject:** RE: Montanore nutrient questions

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;;;;;;
Thanks Barbara. Since our call I looked through appendix G again, and I didn't see any extra calculations that show how the 1.3 mg/L for the water treatment plant was back-calculated. I saw groundwater calculations at the beginning but the aspects pertaining to the treatment levels and non-deg appear to be in the Alt 3 tables on pages G-21 through G-23. The part about anti-deg in the table for TN references 1 mg/L from the BHES order in the part about determining Nonsignificant changes, so I'm still unclear how you used the 10mg/L variance concentration. Did you consider both values? Also, the increase of 10% for the anti-deg evaluation of non-significance is if the background concentration is less than 40% of the standard, and 0.26 is > 40% of 0.275 mg/L. Is that where you considered the 10mg/L?

If the math is not show in Appendix G, could you please email me back with the calculation you used to calculate the 1.3 mg/L, and point out how the variance and BHES order were incorporated?

Thanks,

Lisa

Lisa Kusnierz
NPDES Program
U.S. EPA, Montana Office
10 West 15th Street, Suite 3200
Helena, MT 59626
(406) 457-5001

**From:** Barbara Galloway [mailto:bgalloway@eroresources.com]
**Sent:** Friday, October 02, 2015 12:09 PM
**To:** Jones, Craig ; Kusnierz, Lisa
**Cc:** Griffeth, Thomas
**Subject:** RE: Montanore nutrient questions

Hi, Lisa,

Here's the EPA document I referred to during the call. Also, here's the fisheries paragraph I was referring to:

The BHES Order discussed protection of beneficial uses. On page 5, the Order states "surface water and groundwater monitoring, including biological monitoring, as determined necessary by the Department [DEQ], will be required to ensure that the allowed levels are not exceeded and that beneficial uses are not impaired." Further on page 7, the Order indicates that the limit of 1

mg/L for TIN "should adequately protect existing beneficial uses. However, biological monitoring is necessary to insure protection of beneficial uses and to assure compliance with …applicable standards." The applicable standards include the existing narrative standard prohibiting undesirable aquatic life, or nuisance algal growth. According to the reopener provisions of MPDES permits described in ARM 17.30.1361(2)(b), "permits may be modified during their terms if…the department [DEQ] has received new information …indicating that cumulative effects on the environment are unacceptable, or (c) the standards or requirements on which the permit was based have been changed by amendment or judicial decision after the permit was issued." Consequently, the TIN limit for ambient surface waters set in the BHES Order could be modified in the MPDES permit issued by DEQ at any time if nuisance algal growth caused by MMC's discharge was observed. To address the uncertainty regarding the response of area streams to increased TIN concentrations, MMC would implement the water quality and aquatic biology monitoring described in Appendix C. This includes monitoring for periphyton and chlorophyll-a monthly between July and September.

**Barbara E. Galloway**
Senior Hydrologist

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**From:** Jones, Craig [mailto:crajones@mt.gov]
**Sent:** Monday, September 28, 2015 12:32 PM
**To:** Barbara Galloway <bgalloway@eroresources.com>; Kusnierz, Lisa <kusnierz.lisa@epa.gov>
**Cc:** Griffeth, Thomas <TGriffeth@mt.gov>
**Subject:** RE: Montanore nutrient questions

Would 11:30 am on Friday work for everyone? Thanks. Craig

**From:** Barbara Galloway [mailto:bgalloway@eroresources.com]
**Sent:** Monday, September 28, 2015 12:29 PM
**To:** Kusnierz, Lisa; Jones, Craig
**Cc:** Griffeth, Thomas
**Subject:** RE: Montanore nutrient questions

Thursday and Friday work for me, and mornings are best.

**Barbara E. Galloway**
Senior Hydrologist

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**From:** Kusnierz, Lisa [mailto:kusnierz.lisa@epa.gov]
**Sent:** Monday, September 28, 2015 12:27 PM
**To:** Jones, Craig <crajones@mt.gov>

**Cc:** Griffeth, Thomas <TGriffeth@mt.gov>; Barbara Galloway <bgalloway@eroresources.com>
**Subject:** RE: Montanore nutrient questions

I'll be out of the office tomorrow and Wednesday at a workshop in Bozeman. Thursday or Friday?

**From:** Jones, Craig [mailto:crajones@mt.gov]
**Sent:** Monday, September 28, 2015 9:02 AM
**To:** Kusnierz, Lisa <kusnierz.lisa@epa.gov>
**Cc:** Griffeth, Thomas <TGriffeth@mt.gov>; bgalloway@eroresources.com
**Subject:** RE: Montanore nutrient questions

Lisa,

I'm booked today. What times are you available tomorrow? Thanks.

Craig Jones

MEPA/MFSA Coordinator

Montana Department of Environmental Quality

P.O. Box 200901

Helena, MT 59620-0901

Ph. (406) 444-0514

**From:** Kusnierz, Lisa [mailto:kusnierz.lisa@epa.gov]
**Sent:** Monday, September 28, 2015 8:58 AM
**To:** Jones, Craig
**Subject:** RE: Montanore nutrient questions

Hi Craig,

Sorry I didn't get back to you on Friday – I'm off every other Friday. Is the team available to meet today?

Lisa

**From:** Jones, Craig [mailto:crajones@mt.gov]
**Sent:** Friday, September 25, 2015 10:09 AM
**To:** Kusnierz, Lisa <kusnierz.lisa@epa.gov>
**Subject:** RE: Montanore nutrient questions

Hi Lisa,

Are you available for a quick conference call today? Our EIS contractor, ERO Resources, myself and Tommy Griffeth would like to have a quick call with you to make sure we are getting you the correct information to answer your questions. The only times we are not available are 10:30 - 11:30 am and 3 – 4 pm today. Thanks.

Craig Jones

MEPA/MFSA Coordinator

Montana Department of Environmental Quality

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Ph. (406) 444-0514

**From:** Kusnierz, Lisa [mailto:kusnierz.lisa@epa.gov]
**Sent:** Wednesday, September 23, 2015 4:12 PM
**To:** Jones, Craig
**Cc:** Griffeth, Thomas
**Subject:** Montanore nutrient questions

Hi,

I'm reviewing the NPDES permit for Montanore and looking at the TN variance and nutrient data. The draft permit cites the critical effluent concentration of TN as 0.39 mg/L and provides a variance limit of 10mg/L. Typically DEQ evaluates current performance when setting a variance limit. I asked Tommy about the projected level of nitrogen treatment and was told that it is uncertain. With all of the work that has gone into the EIS, I'm hoping that the level of treatment has been projected, and am doing a little digging. With so much information going into the EIS, I thought it might make it easier for me to understand if I get clarification from you instead of studying the document and tables for too long.

I looked at the Final EIS in p. 120, and it indicates 1.30 mg/L as the estimated water treatment plant discharge. There is no footnote in that table but in some of the tables in Appendix G there is a footnote about it being unknown if the WWTP effluent concentration for nutrients is technologically or economically achievable. What is the 1.3 mg/L based on (i.e., treatment technology, back-calculated from something)?

I noticed that the predicted concentrations after mixing in Table 127 under Alternative 3 are all less than 1 mg/L for TN but am not sure what effluent concentration was used for that. The footnotes in some of the Appendix G tables indicate a variance limit of 10mg/L is assumed, so is the mixing based on that assumption of 10mg/L? What effluent concentration was used to evaluate impacts to aquatic life (i.e., 1.3, 10, something else)?

Lisa Kusnierz

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